ABSTRACT OF THE DISCLOSURE

The present invention relates to an optical component and others in structure capable of implementing improved compensation for a gain slope. The optical component is equipped with first and second Mach-Zehnder interferometers. The first Mach-Zehnder interferometer is provided with a first temperature controller for controlling a temperature of at least one of a part of an optical main path and a first optical side path, while the second Mach-Zehnder interferometer 42 is also provided with a second temperature controller for controlling a temperature of at least one of a part of the optical main path and a second optical side path. A filter circuit having a wavelength-dependent insertion loss is disposed between the first and second Mach-Zehnder interferometers, and a controller controls the temperatures of the optical paths by use of the first and second temperature controllers on the basis of the insertion loss of the filter circuit, thereby setting a loss for light of a predetermined wavelength propagating between a light input end and a light output end.